

OCT 22 2009

Mr. Donald Beatty  
Town of Windsor  
100 King St  
PO Box 158  
Windsor, NS  
B0N 2T0

Dear Mr. Beatty:

**RE: Amended STP Approval to Operate - Brine Drill Water Disposal**  
**Approval No. 2005-050013-A02**  
**PID # 45062197**

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Enclosed please find Approval # 2005-050013-A02 to operate Brine Drill Water Disposal at the Sewage Treatment Plant at 3 Lagoon Dr, Windsor, Hants County, Nova Scotia.

Strict adherence to the attached terms and conditions is imperative in order to validate this approval.

Despite the issuance of this Approval, the Approval Holder is still responsible for obtaining any other authorization which may be required to carry out the activity, including those which may be necessary under provincial, federal or municipal law.

Should you have any questions, please contact Gregory Decker, Central Region, Bedford Office at (902) 424-8106.

Yours Truly



Gregory Decker, P. Eng.  
Regional Engineer

cc A. Teal (NSE)  
G. Decker (NSE)

Eimas #: 2005-050013-A02

## **APPROVAL**

**Province of Nova Scotia**  
***Environment Act, S.N.S. 1994-95, c.1***

**APPROVAL HOLDER:** Town of Windsor

**SITE PID:** 45062197

**APPROVAL NO:** 2005-050013-A02


**EXPIRY DATE:** December 14, 2015

**Pursuant to Part V of the *Environment Act*, S.N.S. 1994-95, c.1 as amended from time to time, approval is granted to the Approval Holder subject to the Terms and Conditions attached to and forming part of this Approval, for the following activity:**

Operation of a Sewage Treatment Plant including Brine Drill Water Disposal, and associated works, at or near 3 Lagoon Dr, Windsor, Hants County in the Province of Nova Scotia.

Administrator

Effective Date

  
Oct 21 '09

# TERMS AND CONDITIONS OF APPROVAL

## Nova Scotia Environment

**Approval Holder:** Town of Windsor  
**Project:** STP/Brine Drill Water Disposal  
**Site:** 3 Lagoon Dr,  
Windsor, Hants County  
PID # 45062197

**Approval No:** 2005-050013-A02

**File No:** 94300-30-BED-050013

### Reference Documents:

- Application dated September 28, 2009 and attachments.
- Town of Windsor Submission dated August 26, 2009.

### 1. Definitions

- a) "Act" means the *Environment Act* S.N.S. 1994-1995, c.1, and includes all regulations made pursuant to the Act.
- b) "Composite Sample" means a representative sample which is taken from the combination of individual samples that are collected over a 24 hour period with at least one sample of 100 ml taken at two hour intervals.
- c) "Department" means the Central Region, Bedford Office, of Nova Scotia Environment located at the following address:

Nova Scotia Environment  
Environmental Monitoring and Compliance Division  
Central Region, Bedford Office,  
Suite 224, 1595 Bedford Highway,  
Bedford, Nova Scotia, B4A 3Y4.

Phone: (902) 424-7773

Fax: (902) 424-0597

- d) "Facility" means the Sewage Treatment Plant and associated works.

- e) "Grab sample" means an individual sample collected in less than 30 minutes and which is representative of the substance sampled.
- f) "Minister" means the Minister of Nova Scotia Environment.
- g) "NSE" means Nova Scotia Environment.
- h) "Sewage Collection System" means the Facility and all auxiliaries for the collection, treatment, storage and discharge of sewage from the source of the sewage to the final discharge point.

## **2. Scope of Approval**

- a) This Approval (the "Approval") relates to the Approval Holder and their application and supporting documentation, as listed in the reference documents above, to construct and operate the Facility, situated at or near 3 Lagoon Dr, Windsor, Hants County (the "Site").
- b) The Facility shall be constructed and operated as outlined in the application for industrial approval dated September 28, 2009 and supporting documentation.
- c) The Site shall not exceed the area as outlined in the application and supporting documentation.
- d) This Approval is restricted to the installation and operation of the Facility only. No other alteration or infill of a watercourse or water resource is permitted by this Approval. Works associated with the alteration or infill of a watercourse or water resource will require separate approval from Nova Scotia Environment.
- e) This Approval does not apply to the electrical, roadways, and structural components of the project.
- f) Should the work authorized by this Approval not be commenced within a year, this Approval shall automatically be null and void, unless extended in writing by an Administrator.

## **3. General Terms and Conditions**

- a) The Approval Holder shall construct, operate and reclaim its Facility in accordance with provisions of the:

- i) *Environment Act* S.N.S. 1994-1995, c.1, as amended from time to time;
  - ii) Regulations, as amended from time to time, pursuant to the above Act;
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- b) The Approval Holder is responsible for ensuring that they operate the Facility on lands which they own or have a lease or written agreement with the landowner or occupier. The Approval Holder shall be responsible for ensuring that the Department has, at all times, a copy of the most recent lease or written agreement with the landowner or occupier. Breach of this condition may result in cancellation or suspension of the Approval.
  - c) If there is a discrepancy between the reference documents and the terms and conditions of this Approval, the terms and conditions of this Approval shall apply.
  - d) Any request for renewal or extension of this Approval is to be made in writing, to the Department, at least ninety (90) days prior to the Approval expiry.
  - e) The Minister or Administrator may modify, amend or add conditions to this Approval at anytime pursuant to Section 58 of the Act.
  - f) This Approval is not transferable without the consent of the Minister or Administrator.
  - g)
    - (i) If the Minister or Administrator determines that there has been non-compliance with any or all of the terms and conditions contained in this Approval, the Minister or Administrator may cancel or suspend the Approval pursuant to subsections 58(2)(b) and 58(4) of the Act, until such time as the Minister or Administrator is satisfied that all terms and conditions have been met.
    - (ii) Despite a cancellation or suspension of this Approval, the Approval Holder remains subject to the penalty provisions of the Act and regulations.
  - h) The Approval Holder shall notify the Department prior to any proposed extensions or modifications of the Facility, including process changes or waste disposal practices which are not granted under this Approval. Extensions or modifications to the Facility may be subject to the Environmental Assessment Regulations. An amendment to this Approval will be required before implementing any change.
  - i) Pursuant to Section 60 of the *Act*, the Approval Holder shall submit to the Administrator any new and relevant information respecting any adverse effect

that actually results, or may potentially result, from any activity to which the Approval relates and that comes to the attention of the Approval Holder after the issuance of the Approval.

- j) The Approval Holder shall immediately notify the Department of any incidents of non-compliance with this Approval.
- k) The Approval Holder shall bear all expenses incurred in carrying out the environmental monitoring required under the terms and conditions of this Approval.
- l) Unless specified otherwise in this Approval, all samples required to be collected by this Approval shall be collected, preserved and analysed, by qualified personnel, in accordance with recognized industry standards and procedures.
- m) Unless written approval is received otherwise from the Administrator, all samples required by this Approval shall be analysed by a laboratory that meets the requirements of the Department's "Policy on Acceptable Certification of Laboratories" as amended from time to time.
- n) The Approval Holder shall submit any monitoring results or reports required by this Approval to the Department. Unless specified otherwise in this Approval, all monitoring results shall be submitted within 30 days following the month of monitoring.
- o) The Approval Holder shall ensure that this Approval, or a copy, is kept on Site at all times and that personnel directly involved in the Facility operation are made fully aware of the terms and conditions which pertain to this Approval.

#### **4. Spills or Releases**

- a) All spills or releases shall be reported in accordance with the *Act* (Part VI) and the *Emergency Spill Regulations*.
- b) Spills or releases shall be cleaned up immediately in accordance with the *Act*.
- c) A quantity of spill/release response material is to be maintained on Site at all times.

**5. Sludge Disposal**

- a) All sludge generated at the Facility shall be treated and disposed of by a method approved by the Department.
- b) On a yearly basis, the sludge in the lagoon shall be tested for heavy metals to determine if the brine drill water disposal is having an impact on the quality of sludge material. A baseline sample shall be collected prior to the start of the brine drill water disposal. The results shall be submitted with the quarterly effluent monitoring for the sampling period.

**6. Operation**

- a) The Approval Holder shall designate in writing, to the Department, a contact for this Approval, prior to the startup and operation of the Facility.
- b) The Facility must be constructed, operated and maintained in a manner that will prevent erosion, chemical spills or any other incidents that may be detrimental to the environment and public health.
- c) The Approval Holder should ensure that the system is operated, maintained and has appropriate backup facilities to protect against failures of the power supply, treatment process, equipment, or structure. Security measures should assure the safety of the sewage treatment processes, storage facilities, and the discharge system.
- d) The Approval Holder shall ensure the development and implementation a contingency/emergency response plan for the Facility in accordance with the requirements of the Nova Scotia Environment "Contingency Planning Guidelines" as amended from time to time. A copy of the contingency/emergency response plan is to be maintained on Site at all times. The plan should include:
  - i) General procedures for routine (equipment break-down, upset conditions, maintenance, etc.) or major emergencies within the sewage works system; and
  - ii) A plan for equipment becoming inoperable in a major emergency.
  - iii) A plan for dealing with spills or releases.

- e) The Approval Holder shall not establish nor maintain a bypass to divert sewage around the Facility or any feature of the Facility treatment process unless the bypass has been approved by the Department. When it is necessary to use an approved by-pass, the Approval Holder shall notify the Department.
- f) The Approval Holder shall take immediate preventive or corrective action ,when results of an inspection or sampling results indicate conditions which are currently or may become a detriment to system operations, and/or result in adverse impact to the environment or public health.
- g) The Facility has been classified as a **Class I wastewater treatment facility**. The day-to-day operations of the wastewater treatment plant shall be supervised directly by certified operators who hold the appropriate certification.
- h) The Approval Holder shall establish and submit to NSE notification procedures to be used to contact the Medical Officer of Health, NSE, other relevant authorities and the general public in the case of an emergency situation.
- i) The Approval Holder shall prepare a comprehensive operations manual within three months of commencement of operation of the Facility and keep it up to date. The manual shall be subject to review by NSE upon request.
- j) A complete set of the drawings, incorporating any amendments made from time to time, shall be kept by the Approval Holder at the Facility for as long as the Facility is kept in operation.
- k) The Approval Holder shall establish procedures for receiving and responding to complaints including a reporting system which records what steps were taken to determine the cause of complaint and the corrective measures taken to alleviate the cause and prevent its recurrence.

## **7. Performance And Limits**

### **7.1 Treated Effluent**

The Facility and associated sewage collection system shall be managed and operated in such a manner that the effluent being discharged to the receiving waters satisfies the following criteria:

- a) Biological oxygen demand, BOD<sub>5</sub>, shall not exceed 20 mg/l.
- b) Suspended Solids, shall not exceed 20 mg/l



- c) Fecal coliform shall not exceed 200/100 count/mls
- d) Disinfection of the effluent from the Facility shall be continuous and if chlorine is utilized; the chlorine residual in the discharge shall not exceed 0.0 mg/L:
- e) pH - 6.5 to 9.

## 7.2 Odour Control

- a) The Approval Holder shall operate the Facility in a manner which will not result in the generation of offensive or hazardous odours/vapours.
- b) The Approval Holder shall be required to implement control measures if odour generation is deemed excessive by the Department.

## 8. Monitoring and Recording

- a) The Approval Holder shall conduct all monitoring and analysis required in this section according to the latest edition of "Standard Methods for the Examination of Water and Waste Water".
- b) All equipment must be installed, maintained and calibrated as specified by the manufacturer's instructions.
- c) Following a review of any of the analytical results required by this Approval, NSE may alter the frequencies, location, and parameters for analyses required for this Approval.

TABLE 1		
PARAMETER	MINIMUM FREQUENCY	LOCATION
BOD <sub>5</sub>	5/quarter	treated effluent discharge
Suspended Solids	5/quarter	treated effluent discharge
Fecal Coliform	5/quarter	treated effluent discharge
pH	continuous or daily grab	treated effluent discharge
Free Chlorine Residual	continuous or daily grab	treated effluent discharge

TABLE 1		
PARAMETER	MINIMUM FREQUENCY	LOCATION
Ammonia	5/quarter	treated effluent discharge
Plant Volumes	continuous	entering and leaving plant

\* All samples shall be grab unless stated otherwise.

- d). The Facility shall be considered in compliance with the effluent limitations if 80% of the sample test results, at the frequency and number specified in table 1 meet the specified limit in section 7.1. No single result can be greater than two times the limits in section 7.1.

## 9. Reporting

### 9.1 Quarterly Reporting

- a) The Approval Holder shall prepare and submit to the Department on a quarterly basis, the results of the sampling conducted at the locations indicated in table 1 above.
- a) The Approval Holder shall prepare and submit to the Department, a quarterly performance report for the facility. The report shall contain the following information in a format acceptable to the Regional Manager.
- i) a summary and discussion of the quantity of wastewater treated during the reporting period compared to the design values for the facility, including peak flow rates, maximum daily flows and monthly average daily flows;
  - ii) a summary and interpretation of analytical results obtained in accordance with Section 8 (monitoring and recording) of this Approval;
  - iv) a tabulation and description of any emergency or upset conditions which occurred during the period being reported upon and action taken to correct them;
  - v) Any complaints that were received and the Approval Holders response.

### 9.2 Emergency Reporting on Operation

- a) The Approval Holder shall notify the Department forthwith in the event that untreated wastewater is directed to the receiving waters.
- b) The Approval Holder shall immediately notify the Department of any incidents of exceedence of the compliance requirement indicated in section 8(d).

**10. Records**

- a) The Approval Holder shall keep the following records and wastewater effluent quality analyses:
  - i) BOD<sub>5</sub>, Suspended Solids, and Bacteriological analyses shall be kept for five years;
  - ii) Flow meter readings shall be kept for 10 years.
- b) The Approval Holder shall also retain the following information for a period of three years:
  - i) calibration and maintenance records;
  - ii) continuous monitoring data;
  - iii) records of any violations of the conditions of this Approval and actions taken by the Approval Holder to correct those violations.
- c) A copy of this Approval, project reports, construction documents and drawings, inspection reports, shall be kept for the life of the facility.

**11. Site Specific Conditions**

- a) The Approval Holder will be limited to disposal of no more than one tanker load (34 m<sup>3</sup>) of brine drill water over a 24 hour period, and a record of Brine Drill Water disposal is to be kept on site and will include date received, source and volume accepted.
- b) The Approval Holder will cease the disposal of Brine Drill Water at the lagoon facility if it is determined by the Department that the practice causes or may cause an adverse impact in the opinion of the Department Engineer or Administrator.
- c) Brine Drill Water addition to the pump station will be prohibited if the pump station is operating at flow capacity.